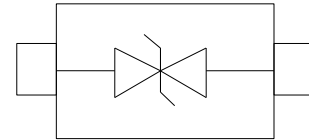


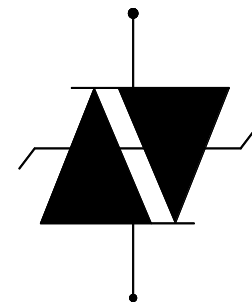


Features

- For surface mounted applications to optimize board space
- Low profile package
- Bidirectional crowbar protection
- Low leakage current : I = 5uA max
- Low on-state voltage
- Low Capacitance
- Response Time is < 1us
- YD/T 950 IEC 61000-4-5
- YD/T 993 ITU K.20/21
- YD/T 1082 TIA-968-A
- GR 1089 Intra-building
- Solid-state silicon technology
- Meets MSL 1 Requirements
- ROHS compliant
- AF technology



SMA



Schematic Diagram

Ordering Information

Device	Qty per Reel	Reel Size
SSCTXXX42DA	5000	13 Inch

Maximum Ratings and Electrical Characteristics

Symbol	Parameter		Value	Unit
I _{PP}	Non-repetitive peak pulse current	10/1000 us	45	A
		5/310 us	60	
		8/20 us	150	
V _{PP}	Non-repetitive peak pulse voltage	10/700us	2500	V
V _{ESD}	ESD Rating per IEC61000-4-2:	Contact	8	KV
		Air	15	
T _s	Storage temperature range		-40 to +150	°C
T _j	Maximum junction temperature		150	°C

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

*Other voltages may be available upon request.



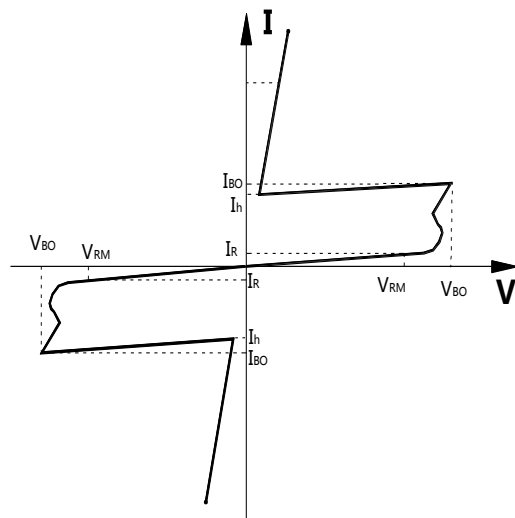
Electrical Parameters (T_{amb}=25°C)

Type	V _{RM}	I _{RM}	V _{BO}	I _{BO}	V _T	I _T	C _O	I _H
	Min.	Max.		Max.	Max.		Typ.	Typ.
	V	μA	V	mA	V	A	pF	mA
SSCT6V042DA	6	5	25	800	4	2.2	50	50
SSCT25V42DA	25	5	40	800	4	2.2	70	50
SSCT58V42DA	58	5	77	800	4	2.2	50	150
SSCT65V42DA	65	5	88	800	4	2.2	50	150
SSCT75V42DA	75	5	98	800	4	2.2	45	150
SSCT90V42DA	90	5	130	800	4	2.2	45	150
SSCT12042DA	120	5	160	800	4	2.2	45	150
SSCT14042DA	140	5	180	800	4	2.2	40	150
SSCT17042DA	170	5	220	800	4	2.2	40	150
SSCT18042DA	180	5	220	800	4	2.2	40	150
SSCT19042DA	190	5	260	800	4	2.2	35	150
SSCT22042DA	220	5	300	800	4	2.2	35	150
SSCT27542DA	275	5	350	800	4	2.2	30	150
SSCT32042DA	320	5	400	800	4	2.2	30	150
SSCT36042DA	360	5	460	800	4	2.2	30	150
SSCT46042DA	460	5	540	800	4	2.2	30	150
SSCT50042DA	500	5	600	800	4	2.2	30	150

Notes:

- All measurements are made at an ambient temperature of 25 °C. I_{PP} applies to -40 °C through +85 °C temperature range.
- Off-state capacitance (C_O) is measured at 1 MHz with a 2 V bias and is typical value.

Symbol	Parameter
V _{RM}	Stand-off voltage
V _{BR}	Breakdown voltage
V _{BO}	Switching Voltage
I _{BO}	Breakover current
I _{RM}	Leakage current at V _{RM}
I _{PP}	Peak pulse current
I _H	Holding current
V _T	On-state Voltage at I _T
C _O	Off-state Capacitance





Typical electrical characterist applications

Rating and Characteristics Curves

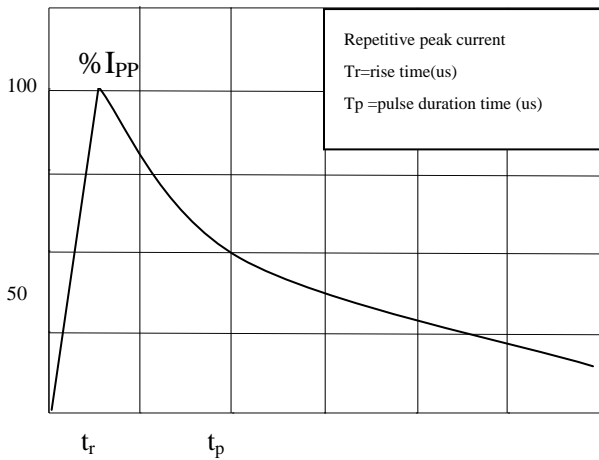


Fig.1 Pulse Waveform (5/310us)

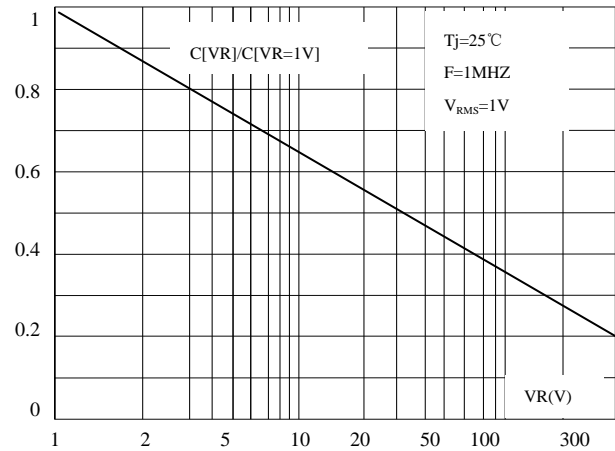


Fig. 2 Relation Variation of Junction Capacitance Versus Reverse Voltage Applied (Typical Values)

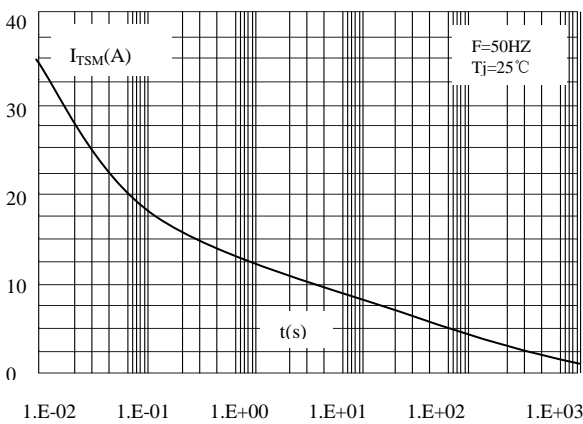


Fig.3 Non Repetitive Surge Peak On-State Current Versus Overload Duration

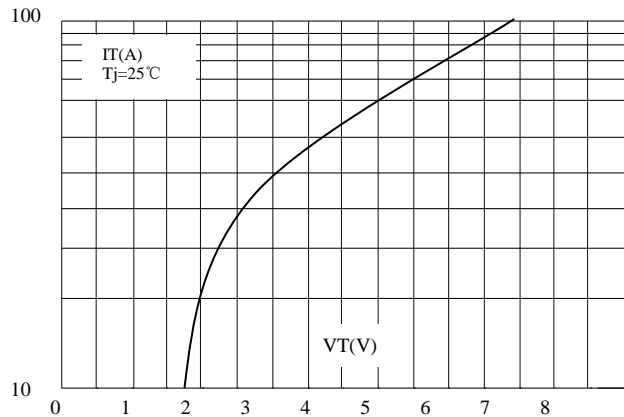


Fig.4 On-State Voltage Versus On-State Current (Typical Values)

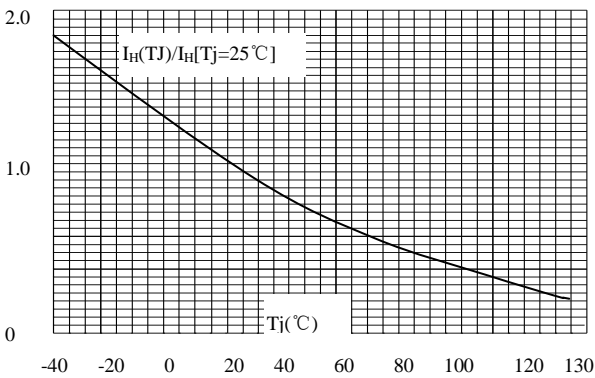


Fig.5 Relative Variation of Hold Current Versus Junction Temperature

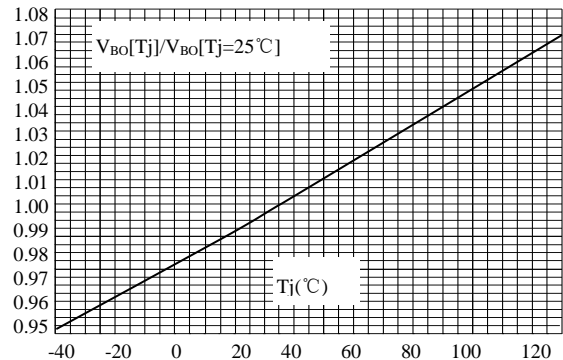


Fig.6 Relative Variation of Break Over Voltage Versus Junction Temperature



Typical electrical characterist applications

Rating and Characteristics Curves

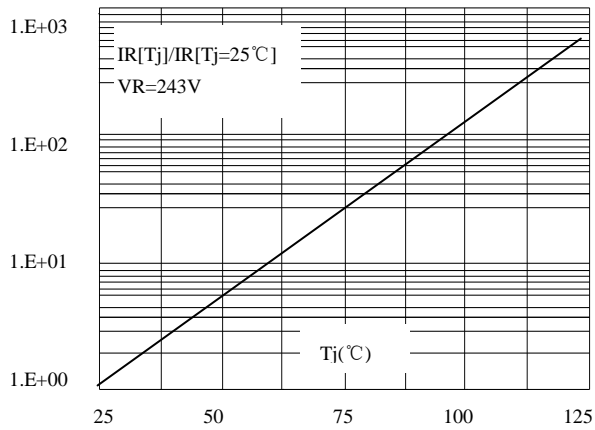


Fig.7 Relative Variation of Leakage Current Versus Reverse Voltage (Typical Values)

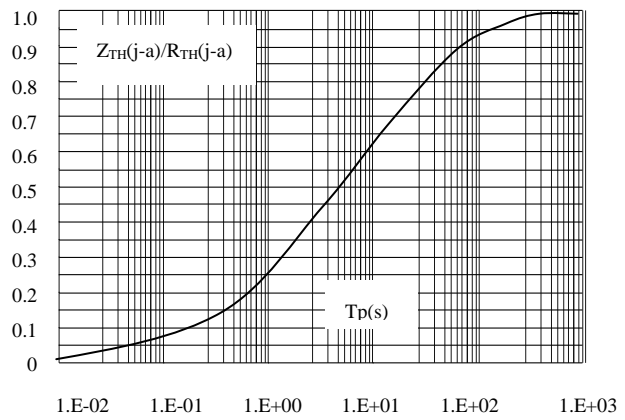


Fig.8 Variation of Thermal Impedance Junction To Ambient Versus Pulse Duration

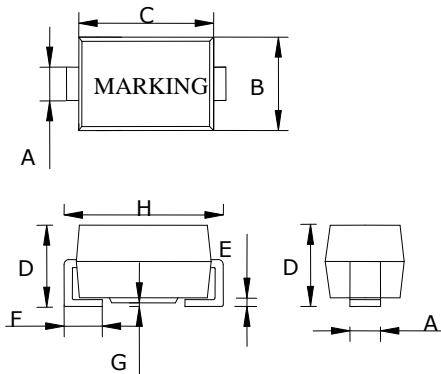


Package Information

SMA

Mechanical Data

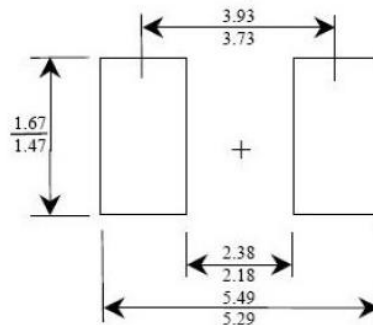
- Case: SMA
- Case Material: Molded Plastic. UL Flammability



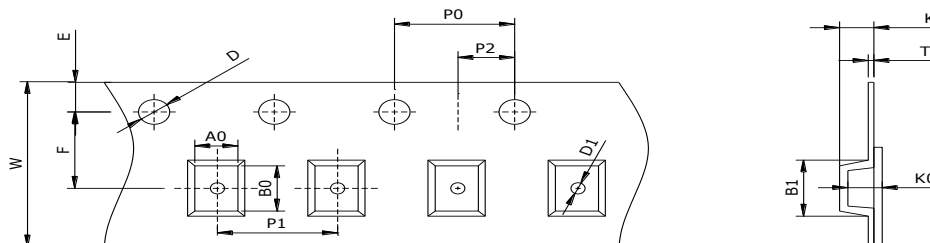
DIM	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A	1.35	1.50	1.80	0.053	0.059	0.071
B	2.50	2.67	2.90	0.098	0.105	0.114
C	3.90	4.40	5.10	0.154	0.173	0.201
D	1.90	2.25	2.45	0.075	0.089	0.096
E	0.05	0.200	0.203	0.002	0.007	0.008
F	0.76	1.14	1.52	0.030	0.045	0.060
G	-	-	0.203	-	-	0.008
H	4.80	5.0	5.30	0.189	0.197	0.209

SMA

Recommended Pad outline



SMA Reel Dim



Package	Chip Size (mm)	Pocket Size B0×A0×K0(mm)	Tape Width	Reel Diameter	Quantity Per Reel	P0	P1
SMA	5.30×2.90×2.45	5.40×3.00×2.55	12mm	330mm(13inch)	5000	4mm	4mm
D	D1	E	F	K	T	W	
1.5mm	1.0mm	1.75mm	3.5mm	2.50mm	0.5mm	12mm	



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